Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

two for extinct types, *Cetotheriinæ* and *Cetotheriopsinæ*. But while suppressing the subfamilies, he has retained the characters, the want of which induced me to frame one of them, in the diagnosis of the family itself. In other words, the subfamily Agaphelinæ was named for forms of Balænopterids distinguished by the absence of pectoral folds and of a dorsal fin, yet Dr. Brandt, while suppressing it as unworthy of subfamily distinction, considers the development of such folds and of a dorsal fin as family characters.* The development or not of the folds and fin is certainly not of family value and should therefore be eliminated from the definition of the family, as it misleads both as to the prevalence of the characters and their value, and at the same time diverts the identifier from the path. Whether the characters are of subfamily value is another question, and one which need not be discussed here.

In conclusion, it appears that I share the opinions of Dr. Brandt on most of the questions discussed, and I am happy to find that I can enroll myself under the banner of so able a leader; and I decidedly protest against being held responsible for views which I am as willing to oppose as he. As to the other points in which we appear to differ, I am fain to believe that it is due to the use of language more comprehensive than was meant by Dr. Brandt, and with the disposition to exercise that allowance for ambiguity which I would wish to have practised in respect to myself, prefer to surmise his real views from the general tenor of his works and thought, than to accept his exact phraseology.

◆

REVIEWS AND BOOK NOTICES.

Archæological Collections in America.—The recent report† by Prof. J. Wyman on the specimens received by the Peabody Museum in Cambridge is a most instructive document, as it not only gives a list of the additions made to the Museum during the year but also contains much interesting information relating to the specimens received; combining many notes by the eminent curator of the museum, suggested while comparing and arranging the immense collection which has been gathered by the careful management of Prof. Wyman and the other trustees of the museum. When the building fund shall have accumulated to an amount sufficient to enable the trustees to erect a proper building in which to exhibit the treasures in their charge, there will be opened a museum of archæology and ethnology that will have but few rivals in size and excellence. The foresight exhibited by the trustees, in obtaining the large and valuable foreign collections as they have been offered for sale, has secured the means of direct comparison of the relics of the prehistoric races of the old world with those of the new. Prof. Wyman remarks, when speaking of the Clement collection, the balance of which was received during the past year:

---

*Pectus et abdomen sulcis longitudinalibus exarata. Pinna dorsalis perfecta vel tuberculo repræsentata.—Brandt, Mel. Biol. viii, 326; see also p. 321.

† Fifth Annual Report of the Trustees of the Peabody Museum of American Archæology and Ethnology. Presented to the President and Fellows of Harvard College, May 15, 1872. 8vo pamphlet, pp. 35. Boston, 1872.

> "The Museum may be considered fortunate in its acquisitions pertaining to European Archæology. With that of Clement from the Swiss lakes, that given by the Museum of Comparative Zoology from the same source, and to be mentioned further on, that of de Mortillet from France, Switzerland and the Italian lakes, with the admirable and very complete collections by Wilmot J. Rose from Denmark, Schleswig and Holstein, and with that of Claus from the same countries, we now possess good means for the study of European Archæology, and for the comparison of the implements and objects belonging to the early age of man in Europe, with the analogous ones of the new world. In view of the fact that there exists a large demand for archæological objects in the principal museums of Europe, that the Danish government prohibits the exportation of such, that the ancient dwelling places on the Swiss and Italian lakes, as also the caves and rock shelters of France, have been largely explored, and many of them exhausted, it is hardly probable that opportunities for obtaining collections, such as those above referred to, will be again offered to us."

In regard to the collections from America the trustees have been equally active and have received many valuable additions, especially from the labors of Rev. E. O. Dunning in East Tennessee, and those of the curator himself in Florida, beside the direct donation of many specimens from various parts of the country, including over eight hundred specimens from New Jersey presented by Dr. C. C. Abbott, who has also done so much for the archæological department of the Academy at Salem.

In his remarks on the Clement collection, Prof. Wyman makes many allusions to the similarity of the specimens with those from this country, and when mentioning the great numbers of antlers of deer and the implements made from them, states:

> "It is worthy of notice that in this collection a large part of all the antlers in which the base remains, were not such as came from animals killed in the chase, but such as had been dropped at the period when they were annually shed, as appears from the peculiar surface of the bone on the line of separation due to absorption. The horns of the deer seem to have been as great a mine of material to the lake dwellers for the manufacture of useful articles, as flint to the ancient inhabitants of Denmark, stone to the North American Indians, or bone to the Esquimaux and the natives of the northwest coast of America."

To show that similar results are attained generally by similar means, we quote a few lines on the drilled stones from the Clement collection:

> "The method of drilling is well illustrated in a variety of instances, some showing the action of a solid, and others of a hollow rotary drill. Some of the last were not finished, but broken perhaps in the act of making, and the place from which the core was detached is quite obvious. A few of the cores are preserved. We thus have, as Mr. Rau has pointed out, processes of drilling parallel to those used by the Indians of this continent."

We may add that in the Academy collection there is a specimen received from New York, which shows the core about a quarter of an inch high standing up from the bottom of a hole that had evidently been drilled for two or three inches by a hollow drill before the specimen had from some cause been broken.

The letter of Mr. Dunning relating to his explorations in Tennessee and the account given by Prof. Wyman of the specimens collected are of great interest to the students of American archæology, and correspond in several respects with the account given by Dr. Jones in a former number of this journal. Among the most interesting relics found in the Tennessee mounds were a number of carved shells which Prof. Wyman describes in his report, of which we hope to be able to give figures in a future number.

As an instance of the acute examination which the curator gives to the specimens that come under his charge, we quote the following remarks on pottery ornamentation:

> "A large proportion of all the vessels as well as fragments are in one way or another marked with the impressions of twisted cords. Similar markings have been observed on pottery from very distant parts of the United States, and have been observed on the

earthen vessels of the prehistoric period of the old world. We have specimens from Maine, Massachusetts, Missouri, Illinois, Ohio, Tennessee and Florida. It is an interesting fact that, while every trace of the cords and woven textures made by the mound-builders has perished, we have impressions or casts of the first left with sufficient distinctness on their earthen vessels to determine the style of twisting and the number of strands, and of the second to ascertain, in some cases, at least, the manner in which the cords were interwoven. By means described further on, the exact structure of the impressing surface has been reproduced. The explanation usually given of these markings is that the vessels have been moulded in a net, which was used to support the soft clay while the process of manufacture was going on. That vessels, especially larger ones, were moulded in baskets, and these destroyed in the burning, there is an abundance of evidence, as set forth in Mr. Rau's interesting paper on the pottery making of the North American Indians in the Smithsonian Report for 1866. This is a point about which there is scarcely any liability to error. But there is a great difference between moulding a vase in a firm and steady structure like a basket, and a yielding, flexible one, like a net. None of the specimens we have thus far received show that a net, if by net is understood a structure formed of meshes made by knotted cord, was used in moulding a vessel, for no impression of a knot is to be found anywhere. It would have been if any existed, as we have shown experimentally. The impressions are, in all cases, either of a *woven* texture or else of cords neither knotted nor woven but probably wound about some body, and in this form used as a stamp. By making casts of the surface of the cord-marked vessels with gutta percha, we have reproduced the original details of the impressing surface, which show very clearly the above differences. The textures are of two kinds, one with and the other without open meshes. The first are formed by a series of parallel cords or warps, intersected by a second series of parallel cords crossing the first at right angles, but including one of these in every twist of its strands. The laborious process was therefore required of passing the two strands of which the second cord is made above and below the first cord, and then twisting them before passing to the next. The texture with closed meshes is handsomely woven, and in one instance of threads not exceeding a thirtieth of an inch in diameter. Unfortunately, none of the vessels bearing markings of a woven texture are entire, so that it is impossible to ascertain whether the impressions are distributed in a uniform manner over the whole surface. It seems incredible that even an Indian would be so prodigal of time and labor as to make the necessary quantity of well twisted cord or thread, and weave it into shape for the mere purpose of serving as a mould, which must be destroyed in the making of a single copy. It must be remembered that the vessels are all made with bodies more or less bulging or spherical, and that in consequence, if formed in a mould, this must either be made in sections capable of being separated, or else it must be destroyed either by cutting or, as is more commonly supposed, by burning, before the copy could be removed. There appear to be no traces of sections, and the impressions show no signs of a mould adapted to removal. Possibly the vessels thus ornamented were intended only for special purposes, as for religious ceremonies or the use of chiefs, and were not made in very large numbers, and so an unusual amount of labor might be accounted for. The second form of cord marked pottery is more common, and is very easily understood. The cords were arranged for the most part parallel to each other, and not connected either by weaving or knotting. We have reproduced such impressions by winding a cord around a stick, and pressing this against the surface of the clay, stamping only a limited surface at one time. In order to cover the whole surface in this way it would be a matter of necessity that adjoining impressions would interfere with each other more or less, which they actually do on the surface of the vessel, one set partially obliterating another. Such impressions must therefore be regarded as finishing touches after the vessel was formed rather than as casts of a mould in which they were supposed to be made. This view is sustained by the fact that they often extend on to the handles, which are never added until the body of the vase is completed, and also by the fact that some of the impressions are but faintly made, as if the clay had already become somewhat hardened before the cords were applied. In one case the impressions were such as would be made by a ball of loosely wound cord, rolled over the surface. We are unable to say whether such markings had more than an ornamental signification, but it is worthy of notice that they were so largely used in widely different parts of the country. We saw similar markings on a vase in the Museum at Berlin, marked as to its origin *unbekannt*, unknown, in which the cord marks were arranged in a few horizontal circles and vertical lines, obviously taking the place of the ornamental lines usually traced with a pointed instrument. Sir John Lubbock mentions the existence of vases from ancient mounds in Scotland, ornamented with impressions from twisted thongs, and further states that in the stone age 'the most elegant ornaments of their vases are impressions of the finger nail, or of a cord wound round the soft clay.' Smith. Rep., 1862, p. 320. In view of these facts the question arises whether the impressions of the finer woven fabrics may not have been also merely ornamental markings added after the vase was completed, and not impressions of a mould in which they were formed."

In recording the collection made by Mr. Dunning from the burial caves in Tennessee, first noticed by Dr. Jones in the Naturalist, Prof. Wyman says:

" A second cave is situated near the mouth of the Big Pidgeon River, not far from Newport, in Cocke County. As described by Mr. Dunning, 'it is about eighty feet above the water, and reached only by a steep rocky path called Devil's Gap. The tomb was found about two feet below the floor of the cave, covered with an artificial layer of clay about six inches in thickness, by which the joinings of the stone were completely closed. It was five feet long, two high and three and a half broad, and built of unhewn stones, fragments of the outcropping limestone ridge near by. The body was placed in a crouching position. Charcoal and ashes were present, indicating that fire had been kindled near the tomb. The only relics found buried with the skeleton were about five pounds of disks made from some large marine shell from an inch to an inch and a half in diameter, and perforated in the middle.' The skeleton found in this stone tomb, as appears from the imperfect ossification of the bones, was that of an individual not quite adult, having a height of nearly six feet, but with bones of rather slender make. The tibiæ are somewhat flattened, and the fore arms are much lengthened, in proportion to the upper arm, the radius being 0·81 and the ulna 0·87 of the length of the humerus. The cranium was not quite perfect, but sufficiently so to determine its principal proportions. The most marked feature, and this is very striking, is the extreme artificial flattening of the occiput, and the consequent increase of the diameter of the head from side to side, so that the breadth somewhat exceeded the length, a degree of distortion not often met with even in the extreme cases among the Peruvians. In many of the North American Indian tribes a comparatively slight amount of distortion is often met with, but among a few it was carried to an extreme condition, as in the Natchez, as recorded by Adair and Bartram, and more recently by Morton; among the Choctaws and Waxsaws, according to Lawson, and among the Catawbas, according to Morton."

It is interesting to know that we have the flattened form of head in the ancient race of Tennessee as well as the natural form, for in a skull which Dr. Jones obtained from East Tennessee, of which we have a photograph in the Academy collection, the high forehead is a marked feature, and it seems now to be a fact beyond dispute that both forms of crania, as expressed by the terms of high and low foreheads, are common throughout the whole mound region of the United States, indicating a great similarity with the ancient races in Central and South America.

The third section of this interesting report contains an account of Prof. Wyman's own explorations in Florida. The care with which the professor renewed his examination of the shell heaps he had formerly so faithfully explored is most valuable in giving unquestionable data to other explorers. We have not space now to quote from this part of the report except so far as relates to the age of the mound at Silver Spring, a large shell heap of from two to twenty feet in height and said to cover an area of about twenty acres. This heap is made up almost entirely of the small fresh water shells of the genera Ampullaria and Paludina, and, as Prof. Wyman remarks, it seems incredible to conceive that such vast numbers of small shells could have been brought together by man from the waters about, and the immense size of the mound must be regarded as the work of many years and probably of centuries.

"There is to be seen at Silver Spring a grove of live oaks, a few survivors of a race of giants once common in the forests near the river, and to which my attention was called by my friend G. A. Peabody, Esq. Six of these at five feet from the ground measured as follows: one thirteen feet, three fifteen, one nineteen, and one between twenty-six and twenty-seven feet in circumference. This last has been partially destroyed by fire, an act of vandalism committed for the purpose of collecting the moss hanging from its branches. The circumference was estimated from one-half of the trunk, all that now remains, but agrees closely with measurements made several years before by Mr. Peabody, when the trunk was still whole. These trees are not on the highest part of the mound, but on the slope farthest from the water. Excavations made beneath the largest of them showed that the tree was of more recent origin than the mound itself. If at the beginning of the second century of the life of the live oak there are twelve rings at least to the inch, then the above mentioned tree, having a semidiameter of fifty inches, would have an age of not less than six hundred years, and was near the beginning of the second century of its existence at the landing of Columbus. On the same basis of calculation, the least age of the mounds near Blue Spring, and at Old Town, would be about four hundred years. Though these estimates are to be regarded only as approximations to the truth, they, without doubt, carry back the origin of the mounds beyond the reach of history or tradition, and certainly one or two centuries before the discovery of America. Although they cannot be more recent than the trees growing upon them, they may have been, and probably were, finished long before the life of the trees above mentioned began."

REVISION OF THE AMERICAN OR TYRANT FLYCATCHERS.*— This revision of the *Myiarchi* is based upon all the accessible material

---

*Studies of the Tyrannidæ.—Part I. Revision of the species of Myiarchus. By Elliott Coues. Proc. Acad. Nat. Sci. Phila. 1872, pp. 56-81. July, 1872.